

IN THE CLAIMS:

This Listing of Claims replaces all prior Listings and versions of claims in the above-identified application.

Listing of Claims

1-68. (Cancelled)

69. (Currently amended) An isolated protein comprising an amino acid sequence selected from the group consisting of:

a) the amino acid sequence of SEQ ID NO:62; and

b) the amino acid sequence encoded by the nucleotide sequence complementary to SEQ ID NO:63,

wherein said protein elicits an immune response against a protein having the amino acid sequence of SEQ ID NO:62.

70. (Previously Presented) A composition comprising the isolated protein of claim 69.

71. (Currently amended) An isolated polypeptide consisting of an amino acid sequence selected from the group consisting of:

a) the amino acid sequence of SEQ ID NO:62; and

b) the amino acid sequence encoded by the nucleotide sequence complementary to SEQ ID NO:63.

72. (Previously Presented) A fragment of at least 6 contiguous amino acids of the isolated polypeptide of claim 71.

73. (Previously Presented) The fragment of claim 72, wherein said fragment elicits an immune response against a protein having the amino acid sequence of SEQ ID NO:62.

74. (Previously Presented) The fragment of claim 72, wherein, when tested in an immunoabsorbent test, said 6 amino acid sequence forms an immunocomplex with an antibody raised against a protein having the amino acid sequence of SEQ ID NO:62.

75. (Previously presented) The fragment of claim 72, wherein said 6 amino acid sequence induces an immediate or delayed-type hypersensitivity response in an animal previously exposed to a protein having the amino acid sequence of SEQ ID NO:62.

76. (Canceled)

77. (New) An isolated protein comprising an amino acid sequence encoded by the nucleotide sequence amplified from flea salivary gland DNA by the polymerase chain reaction when said polymerase chain reaction is performed using flea salivary gland DNA as a template and a first primer having the sequence of SEQ ID NO:81 and a second primer having the sequence of SEQ ID NO:82.

78. (New) The isolated protein of Claim 77, wherein said protein consists of the amino acid sequence encoded by said amplified nucleotide sequence.

79. (New) A fragment of at least 6 contiguous amino acids of the isolated protein of claim 78.

80. (New) The fragment of claim 79, wherein said fragment elicits an immune response against a protein having the amino acid sequence of SEQ ID NO:62.

81. (New) The fragment of claim 79, wherein, when tested in an immunoabsorbent test, said 6 amino acid sequence forms an immunocomplex with an antibody raised against a protein having the amino acid sequence of SEQ ID NO:62.